GENERAL SERVICES ADMINISTRATION
Washington, DC 20405

January 30, 1991

FIRMR BULLETIN C-23

TO: Heads of Federal agencies
SUBJECT: Limitation on the use of halon in fire extinguishing systems

1. Purpose. This bulletin alerts Federal agencies that the use of halon may be limited in the future due to its harmful effects on the stratospheric ozone layer and that alternatives to halon fire extinguishing systems in electronic equipment areas (e.g., computer rooms, telecommunications rooms, and auxiliary facilities) should be considered.

2. Expiration date. This bulletin contains information of a continuing nature and will remain in effect until canceled.

3. Contents.

4. Related material.

a. Evironmental Protection Agency material in:
(1) 40 CFR Part 82
(2) Federal Register
(i) December 14, 1987, 52 FR 47486-47523
(ii) August 12, 1988, 53 FR 30566-30568
(iii) February 9, 1989, 54 FR 6376-6379
(iv) April 3, 1989, 54 FR 13502-13503

b. PBS Handbook, Safety and Environmental Management Program

5. Information and assistance.

(a) Problems or concerns regarding the performance or installation of fire protection systems in electronic equipment areas located in PBS controlled space should be brought to the attention of the respective GSA building manager or GSA's regional Safety and Environmental Management Branch Chief.

(b) For assistance in developing specifications to reduce unwanted or accidental discharge of halon extinguishing systems, call or contact:

General Services Administration
Public Building Serivce
Safety and Environmental Management Division (PMS)
18th and F Sts., NW
Washington, DC 20405
Telephone: FTS 241-1464 or (202) 501-1464.

(c) Further assistance or additional information related to this bulletin may be obtained by contacting:

General Services Administration
Information Resources Management Service
Regulations and Analysis Division (KMR)
18th and F Sts., NW
Washington, DC 20405
Telephone: FTS 241-3194 or (202) 501-3194

6. General. In 1987, the United States and several other industrial nations signed the "Montreal Protocol on Substances that Deplete the Ozone Layer." Provisions of this agreement provide that the production of halon shall not increase beyond 1986 levels through 1992. As a result, halon purchase prices may rise and regulatory restrictions may be imposed on its testing or use in Federal facilities. This could adversely affect Federal agencies that use halon for fire protection in electronic equipment areas. Moreover, new scientific information has suggested that the rate of ozone depletion is greater than previously thought and additional reductions in the usage of chlorofluorocarbons (CFCs) and halon are likely through the Montreal Protocol.

7. Agency responsibility. Agencies should evaluate alternate methods of fire protection and should consider the risks of damage to electronic equipment areas, to mission interruption, to the building, and to the environment versus the cost of protection before deciding whether to use halon, sprinklers, or both. In some cases, until an appropriate halon substitute is available, properly planned and designed halon extinguishing systems may be justified.

8. Existing halon fire suppression systems. Agencies should review the maintenance plans for their halon systems to minimize the possibility of an accidental discharge. If existing halon flooding systems and the associated early warning smoke detection systems do not conform with the current edition of the National Fire Protection Association Standard No. 12 A, Halon 1301 Fire Extinguishing Systems, the agency should consider upgrading the system or disconnecting the system in sprinkler protected space. The charged halon cylinders should then be removed and returned to the supplier for recycling.

9. New halon fire suppression systems. Agencies should consider the intent of the Montreal Protocol and the possibility of limited availability and increased cost of halon when planning for electronic equipment area fire protection. Prior to any decision to install halon fire extinguishing systems, consideration should also be given to the following information:

a. Halon decomposition products (produced as part of fire extinguishing actions) are extremely toxic. After a fire, prompt ventilation of the area must be provided and forced ventilation will often be necessary;

b. Halon will not extinguish all fires and, therefore, fire department hose streams may be used causing greater damage than water discharged from sprinklers;

c. Halon systems are activated by very small fires which could possibly be extinguished with portable fire extinguishers;

d. Halon systems are subject to false actuation;

e. The potential for water damage from sprinklers is frequently overstated since the probability of a sprinkler system leak is very low;

f. Halon systems are very expensive;

g. Halon will not extinguish smoldering fires;

h. Halon systems provide no protection against catastrophic losses if the initial small fire is not extinguished; and

i. Halon 1301 has an ozone depletion rate ten (10) times greater than CFC used for refrigeration.

10. GSA Public Building Service (PBS) restrictions.

a. When a halon extinguishing (flooding) system is provided in space controlled by PBS and the space is not sprinkler protected, then PBS requires a backup halon supply that can be manually discharged.

b. PBS strongly discourages the use of halon extinguishing systems in electronic equipment areas controlled by PBS either in addition to, or in place of, automatic sprinkler protection.

c. Before any halon system is authorized in areas controlled by PBS, the agency should acknowledge in writing the limitations described in paragraph 8 above.

11. Cancellation. FIRMR Bulletin 64 is canceled.

Thomas J. Buckholtz
Commissioner
Information Resources
Management Service